

First-generation graduate and Dean's Medalist heads to Stanford for a PhD in biology

By Gabriela Harrod, ASU News
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Editor's note: This story is part of a series of profiles of notable [spring 2026 graduates](#).

When Sophia Cerna first arrived at Arizona State University, she didn't plan on becoming a scientist.

A first-generation college student who had spent years nurturing her creativity through art, Cerna initially enrolled as an art major, drawn to a field that felt familiar and personal. Over time, however, she found herself pulled in a different direction, shaped by curiosity, encouragement from mentors and a growing desire to make an impact.

That shift led her to major in biological sciences with a focus in genetics, cell and developmental biology — a path that will take her to Stanford University this fall to pursue a PhD.

At ASU's School of Life Sciences, Cerna found her footing in the genetics, cell and developmental biology track, complementing her studies with a minor in data science. What began as a tentative step into a new discipline quickly became a defining part of her undergraduate experience. She immersed herself in research, joining [Madeline Andrews'](#) lab, where she spent more than two years exploring human cerebral cortex organoids, one of the most innovative areas of modern biology.

Cerna said scholarships played a key role in supporting her journey and connecting her with resources. Among them was the [ASU President's Club Scholarship](#), which recognizes academic achievement and involvement, as well as the Pathways for the Future Scholarship, funded by State Farm and designed to support first-generation students. In addition to financial assistance, the program provided mentorship, advising and workshops on financial literacy and preparing for graduate school. Cerna also received the School of Life Sciences Undergraduate Research

Scholarship, which supported her work in the lab.

In the lab, Cerna worked with brain-like structures grown from reprogrammed human cells, giving her a front-row view of how the human brain develops. The work was both intellectually demanding and inspiring, shaping her understanding of how complex systems take form.

Her research examined how cells use energy during development, exploring more realistic conditions than those typically used in traditional lab settings. The project revealed that changes in the cellular environment can influence when different brain cell types emerge, offering new insight into brain development.

That sense of discovery cemented Cerna's commitment to science. She credits her mentors at ASU with helping make that path possible. Without their support, she said, she might never have imagined pursuing a PhD. Now preparing for a rotation-based program at Stanford, she is eager to explore questions in developmental and regenerative biology, including how cells organize into complex structures and how science might one day repair or regenerate human tissues.

In the below Q&A, Cerna expands on her ASU experience and future plans.

Question: What was your “aha” moment when you realized you wanted to study your field

Answer: Once I got involved in research and had my first real project, I experienced the struggle that comes with learning how to do science. I was doing molecular cloning with no experience, and it took weeks of trial and error. Then eventually I got it to work, and I was like, "Oh, this is awesome. I did that." That moment made me want to keep going.

Q: What's something you learned at ASU that changed your perspective?

A: I learned that impact can happen at any stage. Mentored by professors and upperclassmen, I later took on a leadership role in a synthetic biology club, developing workshops to help other students gain lab skills and find research opportunities. It showed me that even as an undergraduate, you can make a difference.

Q: Why did you choose ASU?

A: ASU's size and resources were a major draw. No matter what major you choose, there are so many opportunities, clubs, scholarships and support systems. I also appreciated the collaborative environment, which made it easier to pursue opportunities and connect with others.

Q: Which professor taught you the most important lesson?

A: Madeline Andrews shaped my approach to science. She showed me that the best scientists create environments where everyone's voice matters. The experience helped me feel more confident speaking up.

Q: What advice would you give to current students?

A: Get involved in things that interest you, but don't overdo it. Focusing on a few meaningful activities helps build stronger relationships and deeper growth.

Q: What was your favorite spot on campus?

A: Cartel Coffee was my go-to place to use my M&G and either study or just take a break. It's a great place when you need a pick-me-up, and it has a nice environment to sit and work.

Q: What are your plans after graduation?

A: I'll move to Palo Alto to begin my PhD in biology at Stanford. In the rotation-based program, I'll study developmental and regenerative biology, and explore other areas of cell biology.

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Text image(s)



Sophia Cerna